Amendments to the Specification:

On page 18, lines 15-25, replace the entire paragraph with the following new paragraph:

As said, the IFF apparatus can operate in two modes. The processing apparatus indicates to the decoder by signal 92 the mode of operation, i.e., interrogating or interrogated. Whenever the apparatus operates in the interrogated mode, the decoder looks for a received sequence of pulses as assigned for the interrogating code. The decoder particularly checks the time of appearance of each pulse within the sequence, and tries to find matching to an interrogating signal. Whenever such a matching is found, the decoder conveys a signal 93 to the processing module 4, which in turn initiates a transmission of a response signal by providing to the encoder E of the transmitting portion a timing signal [[94]] 27.

On page 28, lines 5-27, delete the Abstract in its entirety, and insert the following Abstract on a separate page after the claims:
(A replacement Abstract is submitted herewith on a separate sheet.)

ABSTRACT OF THE DISCLOSURE

The invention relates to an IFF ~~transponder~~ apparatus for ground applications, which comprises: (a) ~~Encoder~~ an encoder for forming an interrogating or response sequence of pulses, and conveying the same to a UWB transmitter; (b) [[A]] an UWB transmitter for getting said interrogating or response sequence of pulses, forming a corresponding interrogating or response signal of a sequence of UWB pulses, and transmitting the same via a UWB transmitting antenna; (c) [[A]] a plurality of UWB receiving antennas, disposed away one from the other, for receiving either an interrogating signal or a response signal sent by another ~~transponder~~ IFF apparatus; (d) [[A]] a decoder for getting from at least one of said UWB receiving antennas received signals, decoding the same, comparing the decoded signal with a bank of pre-stored signals, and determining whether a received signal is an interrogating or response signal; and (e) [[A]] a processing unit for, upon receipt of a signal of response to an interrogation signal sent by the present ~~transponder~~ IFF apparatus, calculating the location of the responding ~~transponder~~ IFF

apparatus by: (I) ~~Determining~~ determining the range *R* by the time delays between the interrogating and response signals; (II) ~~Determining~~ determining the direction vector to the responding ~~transponder~~ IFF apparatus by evaluating the time differences between arrival of each response pulse to a plurality of receiving antennas; and (III) determining the identity of the responding ~~transponder~~ IFF apparatus by checking the received sequence of UWB pulses, assuming that the sequence of each ~~transponder~~ IFF apparatus is unique.